



UNITED STATES PATENT AND TRADEMARK OFFICE

ST

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,183	09/24/2002	Guang-Tau Sung	JCLA7802	6296
23900	7590	04/05/2005	EXAMINER	
J C PATENTS, INC. 4 VENTURE, SUITE 250 IRVINE, CA 92618			DHARIA, PRABODH M	
			ART UNIT	PAPER NUMBER
			2673	

DATE MAILED: 04/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/065,183	Applicant(s) SUNG, GUANG-TAU	
	Examiner Prabodh M Dharia	Art Unit 2673	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2673

1. **Status:** Receipt is acknowledged of papers submitted on June 12-06- 2004 under amendments, which have been placed of record in the file. Claims 1-21 are pending in this action.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-18 and 20,21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aufderheide et al. (6,587,097 B1) in view of Kinoshita et al. (6,300,594 B1) and Abileah (20030222857 A1).

Regarding Claim 1, Aufderheide teaches a touch control panel (Col. 8, Lines 19-21) that provides a shield against ultra-violet rays (Col. 8, Lines 36-54), comprising: a transparent (Col. 2, Lines 57,58) substrate (Col. 2, Line 64 to Col.3, Line 3); a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode (Col. 2, Line 53 to Col. 3, Line 3); wherein at least the transparent substrate (Col. 2, Lines 53-66) or the contact layer is able to shield against ultra-violet rays (Col. 5, Lines 51-57, Col. 7, Lines 22-26, Col. 8, Lines 19-24, Lines 36-65).

Art Unit: 2673

However, Aufderheide fails to teach specifically a transparent substrate; a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode.

However, Kinoshita et al. teaches specifically a transparent substrate; a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode (Col. 7, Lines 51-54, Col. 8, Lines 39-53).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Kinoshita et al. teaching in teaching of Aufderheide to have an apparatus for machining an electrically conductive film on a transparent insulating substrate for use in a hybrid type touch panel to remove portions of the electrically conductive film in a slit pattern to form transparent electrodes at very low cost.

Aufderheide teaches a touch control panel (Col. 8, Lines 19-21) that provides a shield against ultra-violet rays (Col. 8, Lines 36-54), comprising: a transparent (Col. 2, Lines 57,58) substrate (Col. 2, Line 64 to Col.3, Line 3); a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode (Col. 2, Line 53 to Col. 3, Line 3); wherein at least the transparent substrate (Col. 2, Lines 53-66) or the contact layer is able to shield against ultra-violet rays (Col. 5, Lines 51-57, Col. 7, Lines 22-26, Col. 8, Lines 19-24, Lines 36-65).

Art Unit: 2673

However, Aufderheide fails to teach specifically a transparent substrate; a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode wherein at least the transparent substrate or the contact layer is capable of resisting ultra-violet rays.

However, Abileah teaches a transparent substrate; a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode (page 3, paragraphs 35-38) wherein at least the transparent substrate or the contact layer is capable of resisting ultra-violet rays (page 4, paragraph 51, page 5, paragraphs 51, 57).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Abileah teaching in teaching of Aufderheide to have a touch panel or touch screen providing substantially reduced reflection of ambient light and undistorted image.

Regarding Claim 2, Aufderheide teaches the contact layer further includes an ultra-violet ray resisting layer capable of shielding against or absorbing ultra-violet rays (Col. 5, Lines 51-57, Col. 8, Lines 50-65).

Abileah teaches a transparent substrate; a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode (page 3, paragraphs 35-38) wherein at least the transparent substrate or the contact layer is capable of

Art Unit: 2673

resisting ultra-violet rays (page 4, paragraph 51, page 5, paragraphs 51, 57).

Regarding Claim 3, Aufderheide teaches the contact layer further includes a hard coating on the other side of the surface with the second transparent electrode thereon (Col. 2, Line 53 to Col. 3, Line 3, Col. 3, Lines 58-60, Col. 5, Lines 40-42, Col. 1, Lines 25-43, Col. 6, Lines 15-20).

Regarding Claim 4, Aufderheide teaches the space between the first transparent electrode and the second transparent electrode (Col. 1, Lines 25-43, Col. 6, Lines 15-20) contains a plurality of spacers (Col. 2, Line 66 to Col. 3, Line 3).

Kinoshita et al. teaches the space between the first transparent electrode and the second transparent electrode contains a plurality of spacers (Col. 8, Lines 39-45).

Regarding Claim 5, Kinoshita et al. teaches the first transparent electrode and the second transparent electrode are made with identical material or different materials (Col. 8, Lines 39-45, Col. 10, Lines 37-40).

Regarding Claim 6, Aufderheide teaches material constituting the contact layer is selected from a group consisting of polyester, glass and glass with a transparent electrode therein (Col. 2, Line 53 to Col. 3, Line 3, Col. 3, Lines 58-60, Col. 5, Lines 40-42, Col. 1, Lines 25-43, Col. 6, Lines 15-20).

Art Unit: 2673

Regarding Claim 7, Aufderheide teaches the contact layer and the transparent substrate comprise an optical coating thereon (Col. 5, Lines 40-57, Col. 8, Lines 50-65).

Regarding Claim 8, Aufderheide teaches includes an adhesion element attached to the edges of the first transparent electrode (Col. 2, Lines 66 to Col. 3, Line 3).

Regarding Claim 9, Aufderheide teaches both the transparent substrate and the contact layer have ultra-violet ray resisting capacity (Col. 5, Line 40-57, Col. 4, Lines 50-56).

Regarding Claim 10, Aufderheide teaches a display device structure that resists ultra-violet ray illumination, comprising: a display panel; and a touch control panel over the display panel such that the intensity of ultra-violet rays after passing through the touch control panel is immensely reduced (Col. 5, Line 40-57, Col. 4, Lines 50-56, Col. 8, Lines 50-65, Col. 2, Lines 53 to Col. 3, Line 3).

Abileah teaches a transparent substrate; a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode (page 3, paragraphs 35-38) wherein at least the transparent substrate or the contact layer is capable of substantially reduces intensity ultra-violet rays (page 4, paragraph 51, page 5, paragraphs 51, 57).

Regarding Claim 11, Aufderheide teaches the display panel is selected from a group consisting of an organic light-emitting diode panel, a plasma display panel, a liquid crystal

Art Unit: 2673

display panel and a cathode ray tube screen display (Col. 6, Lines 42-49).

Regarding Claim 12, Aufderheide teaches a touch control panel (Col. 8, Lines 19-21) that provides a shield against ultra-violet rays (Col. 8, Lines 36-54), comprising: a transparent (Col. 2, Lines 57,58) substrate (Col. 2, Line 64 to Col.3, Line 3); a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode (Col. 2, Line 53 to Col. 3, Line 3); wherein at least the transparent substrate (Col. 2, Lines 53-66) or the contact layer is able to shield against ultra-violet rays (Col. 5, Lines 51-57, Col. 7, Lines 22-26, Col. 8, Lines 19-24, Lines 36-65).

However, Aufderheide fails to teach specifically a transparent substrate; a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode.

However, Kinoshita et al. teaches specifically a transparent substrate; a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode (Col. 7, Lines 51-54, Col. 8, Lines 39-53).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Kinoshita et al. teaching in teaching of Aufderheide to have an apparatus for machining an electrically conductive film on a transparent insulating substrate for use in a hybrid

Art Unit: 2673

type touch panel to remove portions of the electrically conductive film in a slit pattern to form transparent electrodes at very low cost.

Aufderheide teaches a touch control panel (Col. 8, Lines 19-21) that provides a shield against ultra-violet rays (Col. 8, Lines 36-54), comprising: a transparent (Col. 2, Lines 57,58) substrate (Col. 2, Line 64 to Col.3, Line 3); a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode (Col. 2, Line 53 to Col. 3, Line 3); wherein at least the transparent substrate (Col. 2, Lines 53-66) or the contact layer is able to shield against ultra-violet rays (Col. 5, Lines 51-57, Col. 7, Lines 22-26, Col. 8, Lines 19-24, Lines 36-65).

However, Aufderheide fails to teach specifically a transparent substrate; a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode wherein at least the transparent substrate or the contact layer is capable of resisting ultra-violet rays.

However, Abileah teaches a transparent substrate; a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode (page 3, paragraphs 35-38) wherein at least the transparent substrate or the contact layer is capable of resisting ultra-violet rays (page 4, paragraph 51, page 5, paragraphs 51, 57).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Abileah teaching in teaching of Aufderheide to have a touch panel or touch screen

Art Unit: 2673

providing substantially reduced reflection of ambient light and undistorted image.

Regarding Claim 13, Aufderheide teaches the touch control panel further includes an adhesion element attached to the edges of the first transparent electrode (Col. 3, Line 66 to Col. 3, Line 3).

Regarding Claim 14, Aufderheide teaches the touch control panel further includes a hard coating on the outward facing surface of the contact layer (Col. 5, Lines 58-67).

Regarding Claim 15, Aufderheide teaches the space between the first transparent electrode and the second transparent electrode comprise a plurality of spacers (Col. 6, Lines 60-65).

Regarding Claim 16, Aufderheide teaches both the transparent substrate and the contact layer of the touch control panel have ultra-violet ray resisting capacity (Col. 5, Line 40-57, Col. 4, Lines 50-56, Col. 8, Lines 50-65, Col. 2, Lines 53 to Col. 3, Line 3).

Abileah teaches a transparent substrate; a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode (page 3, paragraphs 35-38) wherein at least the transparent substrate or the contact layer is capable of resisting ultra-violet rays (page 4, paragraph 51, page 5, paragraphs 51, 57).

Art Unit: 2673

Regarding Claim 17, Kinoshita et al. teaches the first transparent electrode and the second transparent electrode are made with identical material or different materials (Col. 8, Lines 39-45, Col. 10, Lines 37-40).

Regarding Claim 18, Aufderheide teaches material constituting the contact layer within the touch control panel is selected from a group consisting of polymer resin, glass and glass with a transparent electrode therein (Col. 2, Line 53 to Col. 3, Line 3, Col. 3, Lines 58-65, Col. 5, Lines 33-45). Kinoshita et al. teaches material constituting the contact layer within the touch control panel is selected from a group consisting of polymer resin, glass and glass with a transparent electrode therein (Col. 8, Lines 39-45, Col. 10, Lines 37-40).

Regarding Claim 20, Aufderheide a display device structure, comprising; a display panel; and a touch control panel (Col. 2, Lines 53-62, Col. 8, Lines 19-58). Abileah teaches a display device structure, comprising; a display panel; and a touch control panel (page 3, paragraphs 35-38), capable of resisting ultra-violet rays formed over the display panel so that intensity of ultra-violet rays reaching the display panel via the touch control panel is substantially reduced (page 4, paragraph 51, page 5, paragraphs 51, 57).

Regarding Claim 21, Aufderheide a display device structure, comprising; a display panel; and a touch control panel (Col. 2, Lines 53-62, Col. 8, Lines 19-58). Abileah teaches a display device structure, comprising: a display panel; and a touch control panel, formed over the display panel (page 3, paragraphs 35-38), wherein the touch control panel comprises at least a ultra-

Art Unit: 2673

violet resisting layer for substantially reducing intensity of ultra-violet rays reaching the display panel (page 4, paragraph 51, page 5, paragraphs 51, 57).

4. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aufderheide et al. (6,587,097 B1) in view of Kinoshita et al. (6,300,594 B1) and Abileah (20030222857 A1) as applied to claims 1-18,20,21 above, and further in view of Wang et al. (US 2003/0048597 A1).

Regarding Claim 19, Aufderheide teaches a touch control panel (Col. 8, Lines 19-21) that provides a shield against ultra-violet rays (Col. 8, Lines 36-54), comprising: a transparent (Col. 2, Lines 57,58) substrate (Col. 2, Line 64 to Col.3, Line 3); a first transparent electrode disposed on the transparent substrate; a contact layer over the transparent substrate; and a second transparent electrode disposed on surface of the contact layer facing the first transparent electrode (Col. 2, Line 53 to Col. 3, Line 3); wherein at least the transparent substrate (Col. 2, Lines 53-66) or the contact layer is able to shield against ultra-violet rays (Col. 5, Lines 51-57, Col. 7, Lines 22-26, Col. 8, Lines 19-24, Lines 36-65).

However, Aufderheide modified by Kinoshita et al. and Abileah fails to teach the touch control panel is attached to the display panel through double-sided tape.

However, Wang et al. teaches the touch control panel is attached to the display panel through double-sided tape (page 1, paragraph 15, page 2, paragraph 6).

Thus it is obvious to one in the ordinary skill in the art at the time of invention was made to incorporate Kinoshita et al. teaching in teaching of Aufderheide modified by Kinoshita et al. and Abileah to have user friendly PDA with dust proof and water proof function.

Art Unit: 2673

Response to Amendment

5. The amendments to abstract filed on 12-06-2004 under amendments, is sufficient to overcome the objection to abstract. The objection to abstract is withdrawn.

Response to Arguments

6. Applicant's arguments with respect to claims 1,10, 12,16 have been considered but are moot in view of the new ground(s) of rejection.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is informed that all of the other additional cited references either anticipate or render the claims obvious. In order to not to be repetitive and exhaustive, the examiner did draft additional rejection based on those references.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

Art Unit: 2673

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prabodh M Dharia whose telephone number is 703-605-1231.

The examiner can normally be reached on M-F 8AM to 5PM.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on 703-3054938. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:


Commissioner of Patents and Trademarks

Washington, D.C. 20231

PD

AU2673

March 28, 2005



JIMMY NGUYEN
PRIMARY EXAMINER